

Notice of Allowability

Application No.

10/661,844

Examiner

Irakli Kiknadze

Applicant(s)

TOTH ET AL.

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 5/23/05.
2. ☒ The allowed claim(s) is/are 1-37.
3. ☒ The drawings filed on 12 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. In response to the Office action dated March 23, 2005 the Amendment has been received on May 23, 2005.

Claims 1, 13, 16 and 27 have been amended.

Claims 1-37 are currently pending in this application.

Allowable Subject Matter

2. Claims 1-37 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Claims 1-11 are allowed because prior art fails to teach or make obvious a method positioning a filter having an anode side and a cathode side between an X-ray source and an X-ray detector, wherein the cathode side has a higher attenuation coefficient than the anode side, and wherein the attenuation coefficient is determined to at least partially compensate for an x-ray tube target angle heel effect as claimed in claim. Claims 2-11 are allowed by virtue of their dependence.

Claims 12-15 are allowed because prior art fails to teach or make obvious an X-ray tube comprising: a material deposited on a beryllium window, wherein the material is wedge shaped, wherein the wedge shape comprises a horizontal top, a bottom, a first vertical side and a second vertical side, wherein said horizontal top and said bottom are not parallel and wherein the first vertical side and said second vertical side are unequal in length as claimed in claim 12. Claims 13-15 are allowed by virtue of their dependence.

Claims 16-26 are allowed because prior art fails to teach or make obvious an imaging system for scanning an object comprising: a filter having an anode side and a cathode side, positioned between a radiation source and a detector, wherein the cathode side has a higher attenuation coefficient than the anode side, and wherein the attenuation coefficient is determined to at least partially compensate for a target angle heel effect as claimed in claim 16. Claims 17-26 are allowed by virtue of their dependence.

Claims 27-37 are allowed because prior art fails to teach or make obvious a Computed Tomography (CT) imaging system for scanning an object comprising: a filter having an anode side and a cathode side, positioned between an x-ray source and an x-ray detector, wherein the cathode side has a higher attenuation coefficient than the anode side, and wherein the attenuation coefficient is determined to at least partially compensate for a target angle heel effect as claimed in claim 27. Claims 28-37 are allowed by virtue of their dependence.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Grossmann (US Patent 2,225,940) and Moore (US Patent

4,181,858) teach the wedge shape compensating filters for X-ray sources but fail to teach compensation for the x-ray tube target angle heel effect. Hartwell (US Patent 4,499,591) teaches a protective filter attached to an X-ray radiation source but fails to teach that the filter has a wedge shape and provides compensation for the x-ray tube target angle heel effect.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irakli Kiknadze
June 7, 2005

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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER